

1077-20-1473

Andrey Minchenko*, Department of Mathematics, Middlesex College, London, Ontario N6A 5B7, Canada, and **Alexey Ovchinnikov**. *Representations of reductive differential algebraic groups.*

With any reductive linear differential algebraic group G , one can associate (in a natural way) a reductive linear algebraic group H . We will discuss the relation between linear representations of G and H . In particular, if $G=SL(2)$, we will give an efficient description of finite-dimensional extensions of irreducible representations of G by embedding into the module of differential polynomials in two variables. (Received September 19, 2011)